

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-5 (canceled)

6. (original) A semiconductor device comprising:
- a semiconductor substrate;
 - an active circuit fabricated on said substrate and comprised of an integrated power transistor, said circuit having at least one metallization layer forming a plurality of first and second electrodes of said transistor;
 - a first bus connecting all of said first electrodes, and a second bus connecting all of said second electrodes, each bus connected to said respective electrode by metal-filled vias, whereby said buses are positioned directly over said transistor;
 - a mechanically strong, electrically insulating film overlaying said circuit, said transistor, and said buses;
 - a plurality of contact pads distributed over each of said buses, each of said pads having a stack of stress-absorbing metal layers, the outermost layer being metallurgically attachable, and a connection to the underlying bus through openings in said insulating film, said openings positioned substantially vertically over at least one of

- said vias; and
at least one connecting member attached to said
contact pads, whereby the electrical current path
and resistance from said member to said
electrodes are minimized, improving the
electrical characteristics of said power
transistor.
7. (original) The device according to Claim 6 wherein said substrate
is selected from a group consisting of silicon, silicon
germanium, gallium arsenide, and any other
semiconductor material customarily used in electronic
device production.
8. (original) The device according to Claim 6 wherein said circuit
comprises a plurality of active and passive electronic
components arranged horizontally and vertically.
9. (original) The device according to Claim 6 wherein said power
transistor is laid out horizontally, having said
electrodes arranged in a plurality of metal bands
substantially parallel to each other.
10. (original) The device according to Claim 9 wherein said power
transistor comprises electrical current flowing
horizontally through said electrodes and said
semiconductor between said electrodes.
11. (original) The device according to Claim 6 wherein said at least

one metallization layer is made of pure or alloyed copper, aluminum, nickel, or refractory metals.

12. (original) The device according to Claim 6 wherein said electrically insulating film further serves as the protective overcoat of said integrated circuit.
13. (original) The device according to Claim 6 wherein said electrically insulating film comprises materials selected from a group consisting of silicon nitride, silicon oxynitride, silicon carbon alloys, polyimide and sandwiched films thereof.
14. (original) The device according to Claim 13 wherein said electrically insulating film is between about 400 and 1500 nm thick.
15. (original) The device according to Claim 6 wherein said stack of metal layers of said contact pads comprise a layer of seed metal on said bus bar, promoting adhesion to said bus bars and inhibiting migration of overlying metals to said bus bar, at least one stress-absorbing metal layer, and an outermost metallurgically attachable metal layer.
16. (original) The device according to Claim 15 wherein said seed metal layer is selected from a group consisting of tungsten, titanium, titanium nitride, molybdenum, chromium, and alloys thereof.

17. (original) The device according to Claim 16 wherein said layer of seed metal is between about 200 and 500 nm thick.
18. (original) The device according to Claim 15 wherein said stress-absorbing metal layer comprises at least one layer selected from a group consisting of copper, nickel, aluminum, and alloys thereof.
19. (original) The device according to Claim 18 wherein said stress-absorbing metal layer is between about 2 and 35 μm thick.
20. (original) The device according to Claim 15 wherein said outermost metal layer is metallurgically bondable or solderable.
21. (original) The device according to Claim 20 wherein said outermost bondable metal layer is selected from a group consisting of pure or alloyed aluminum, gold, palladium, and silver.
22. (original) The device according to Claim 20 wherein said solderable metal layer is selected from a group consisting of palladium, gold, silver and platinum.
23. (original) The device according to Claim 20 wherein said outermost layer is between about 500 and 2800 nm thick.
24. (original) The device according to Claim 6 wherein said connecting

member is a bonding wire or a solder ball.

25. (original) The device according to Claim 24 wherein said bonding wire is selected from a group consisting of pure or alloyed gold, copper, and aluminum.

26. (original) The device according to Claim 24 wherein said solder ball is selected from a group consisting of tin, tin alloys including tin/copper, tin/indium, tin/silver, tin/bismuth, tin/lead, and conductive adhesive compounds.

Claims 27-29 (canceled)